

7.1 -7.2 Practice Show ALL work

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Write each expression in radical form.

1) $(2b)^{-\frac{1}{3}}$

2) $v^{\frac{1}{2}}$

Write each expression in exponential form.

3) $(\sqrt{10x})^3$

4) $\frac{1}{(\sqrt{3n})^5}$

Simplify.

5) $\sqrt[5]{160n^8}$

6) $\sqrt[3]{-256a^4}$

Simplify. Your answer should contain only positive exponents with no fractional exponents in the denominator.

7) $\frac{3x^{\frac{3}{2}}y^{\frac{1}{2}}}{4xy}$

8) $\frac{3x^{\frac{2}{3}}y^{\frac{4}{3}}}{4yx^{\frac{1}{4}}}$

9) $\left(u^{-\frac{3}{2}}v^{\frac{7}{4}}\right)^0$

10) $\left(x^{\frac{2}{3}}y^{\frac{7}{4}}\right)^{-\frac{4}{3}}$

11) $(u^0v^3)^2$

12) $\left(x^{\frac{7}{4}}y^2\right)^{\frac{3}{2}}$

$$13) 4a^{\frac{4}{3}}b^0 \cdot 3a^2b^0$$

$$14) 3x^0y^{-\frac{3}{2}} \cdot 3y^{-\frac{1}{2}} \cdot 3x^{\frac{7}{4}}y^{-\frac{5}{4}}$$

Simplify.

$$15) -2\sqrt[3]{4} - \sqrt[3]{-4}$$

$$16) -3\sqrt[3]{5} - 3\sqrt[3]{5}$$

$$17) \sqrt{10} \cdot \sqrt{15}$$

$$18) \sqrt{12} \cdot \sqrt{6}$$

$$19) \sqrt{12b^2} \cdot \sqrt{3b^3}$$

$$20) \sqrt{9n} \cdot \sqrt{2n^2}$$

$$21) (x^{12})^{-\frac{5}{4}}$$

$$22) (81a^2)^{\frac{3}{2}}$$